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THE USE OF QUININE WITH NERVOUS
SEDATIVES

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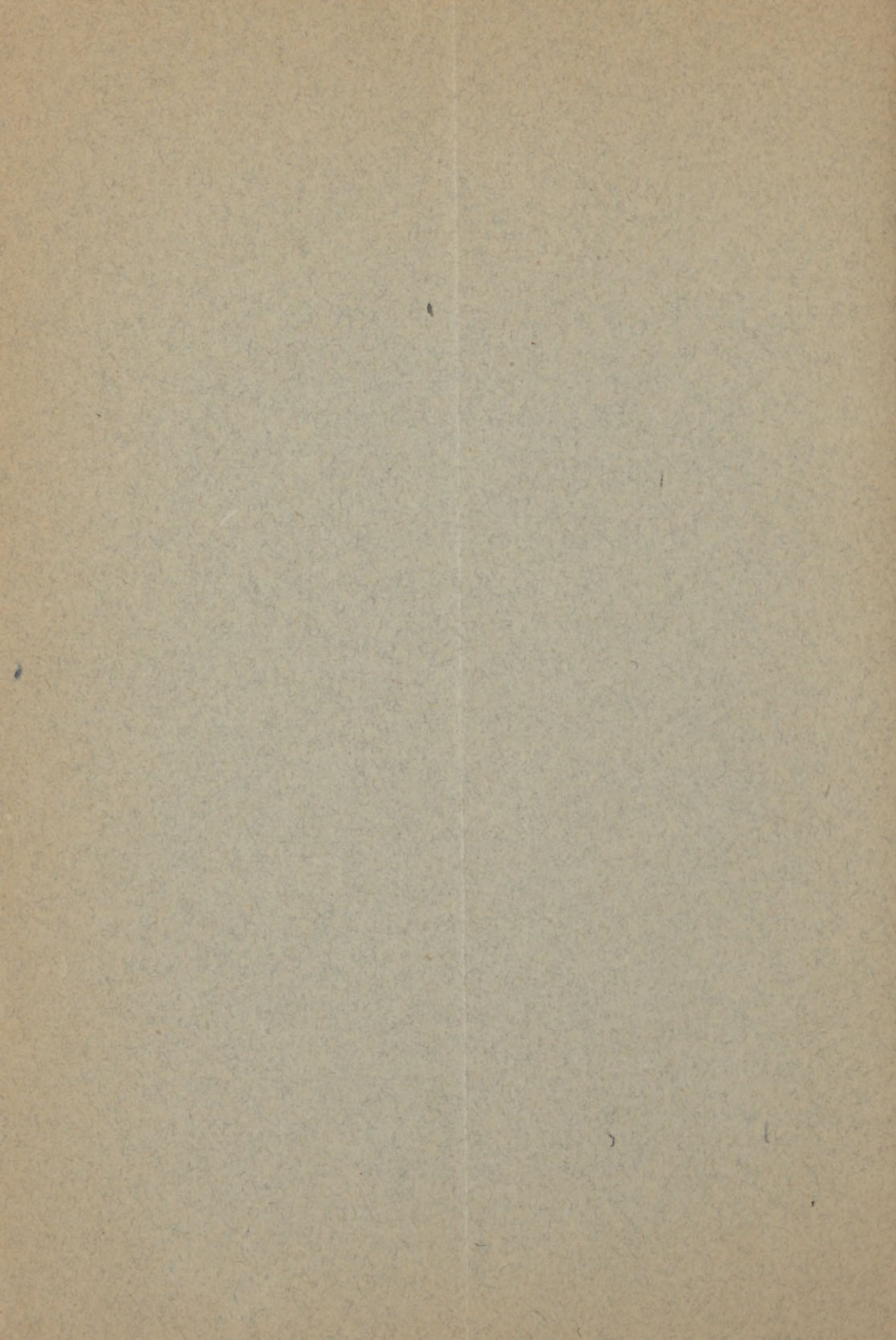
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[Reprinted from the ARCHIVES OF MEDICINE, October, 1880]



NEW YORK
G. P. PUTNAM'S SONS
182 FIFTH AVENUE
1880





THE USE OF QUININE WITH NERVOUS SEDATIVES.*

WIDESPREAD as is the use of the bromides, the proper indications for their use are not, in my opinion, always as well understood. The general idea in regard to them would seem to be, that they are quieters of overaction of the nervous system; but it is seldom that a man is found who makes a distinction between the kind of overaction that they will favorably influence, and the kind to which they are either negatively or positively deleterious. A little reflection will make it evident that this so-called overaction may be produced by various pathological conditions that are diametrically different in their causation, and which will therefore call for as varied methods of treatment. A neuralgia, for instance, may be set agoing by a hyperæmic condition of the nerve or its centres, or by an anæmic or ischæmic condition of the same; or it may be started by the impure blood of a gouty or rheumatic individual, or by malaria, syphilis, impure air, heat, cold, improper food, overstraining of the eyes; or, being purely functional, it may occur in a patient who is robust and ruddy, or in one who is debilitated. A tremor may be seen in persons whose molecular conditions are the

* Read before the American Neurological Association, June, 1880.

Reprinted from the ARCHIVES OF MEDICINE, Vol. iv, No. 2, October, 1880.

feeble ones that obtain toward old age, as in paralysis agitans; or the sufferer may be the younger and stouter subject who usually bears about a disseminated sclerosis. An epilepsy or an insanity may occur in a feeble man or woman, or in those whose physical condition is otherwise above reproach. *A priori* it would seem improbable that any one remedy, as the bromides, would be equally efficacious in all these conditions. And so it is. A distinction should be made in the application of these salts. If we adopt a classification that has, in a large measure, lost its favor in these days of stimulation in medicines and foods,—that, namely, into sthenic and asthenic cases,—we shall, if I may be allowed to speak from my experience, be possessed of a reliable and rational criterion. We may expect benefit from the administration of the bromides in individuals whose hearts beat well, who are ruddy, who are not in need of tonics or stimulants, who are *sthenic*. We must not so confidently anticipate relief in those who are debilitated, who are *asthenic*. My attention was first called to this distinction by some unfortunate experiences. A young but confirmed epileptic was placed under my care. He was greatly demented, thin, haggard, feeble. I ordered for him ten grains of the bromide of potash and five grains of the bromide of sodium morning and noon, and double the dose at night. He had taken the medicine for a week, with such apparently happy effect that the parents were gushing with gratitude at the improvement of mind and the great diminution in the convulsions. I directed that the doses should be doubled. The next day I was summoned in great haste, and found my patient, who had taken one increased dose, in a state bordering on collapse,—pupils enormously dilated, radial pulse almost imperceptible at the wrist, extremely pale, dribbling saliva, respiration slow and sighing, semi-comatose. I succeeded in bringing him out of danger; but I never saw him again.

I had an opportunity of observing a case of paralysis agitans in an old man over 70, whose physical condition was fair, and for whom potassium bromide, ten grains, and sodium bromide, five grains, were prescribed thrice daily. For several weeks he improved considerably. He then became suddenly very feeble, shortly afterward was paralyzed upon one side, and died within a week or two. I have no means of knowing positively that this untoward result was due to the medicine, but from similar cases, some of which I have heard, others of which I have seen, I strongly suspect that such was the fact. In cases of neuralgia, too, about the head and face, in cephalalgia, in insomnia, in cerebral exhaustion, in many forms of nervous irritability, I have again and again witnessed the administration of the bromides producing either no amelioration at all, or giving only temporary relief that was soon followed by increase of the trouble, or doing actual harm.

But there are certainly patients with whom it may be desirable, even though they be asthenic, to obtain the peculiar sedation of the bromides in all its fulness. In treating epilepsy, for instance, I am a firm believer in the efficacy of the bromides. But, day after day, as patients have walked into my clinic, or my office, listless, with dilated pupils, feeble pulses, lack of appetite, pale, drowsy, I have been struck with the thought that the improvement in the epileptic symptoms was being gained by a method of treatment which was only justifiable in the absence of any less depressing therapeutical procedure. I began to use quinine for its tonic effects; in small doses, however, and cautiously, for I feared that it would lessen the restraint of the salts upon the disease. To my *surprise, however, I found that not only did it not do so, but that whilst it decreased or dispelled the bromism, it increased the anti-epileptic potency of the bromides.* I then prescribed the quinine in larger doses, and obtained similar results in a more marked manner. I have

now pursued my investigation of the subject for upward of two years in a large number of epileptics, and I am convinced of the actuality of what I first observed. When exhibited with the bromides in other diseases, as in insomnia, certain forms of neuralgia, headache, and the manifold nervous irritations which accompany so many pathological conditions, quinine will in like manner remove the bromism and increase the effect of the salt over the disease for which it is given, unless the patient be one of those upon whom quinine acts injuriously, because of plethora, lithæmia, idiosyncrasy, or some other cause. It has now become my habit in treating epilepsy to give the bromides until bromism is produced, then to give quinine in doses of two to three grains twice or thrice daily. In some cases this may answer the purpose, but in the greater number who will require still larger doses of the bromides, the latter are better borne with the quinine. There are some exceptional epileptics of excellent general health to whom quinine seems injurious, and who bear well the full sedation of the bromides, but the larger proportion of epileptics do not belong to this class. In treating other nervous troubles, occurring in individuals of the asthenic type, in whom I desire to obtain the calm that comes from the bromides without their depression, I first get the stimulation of the quinine before the bromides are prescribed.

Quinine, when given in conjunction with belladonna in epilepsy, will also deepen the effect of these drugs upon the nervous system, at the same time that it decreases or dispels their depressing action. I have tested it with belladonna in many epileptics. I have also tried it with hyoscyamine in several cases of paralysis agitans, in several cases of insanity in my practice, and in a larger number in those wards of the Flatbush Lunatic Asylum which my friend and colleague, Dr. John C. Shaw, has courteously placed under my charge. In a case of paralysis agitans, which I

have elsewhere related at length,* I found, that by the combination of the remedies, I was enabled to increase the action of the hyoscyamine over the disease, whilst I removed the unpleasant headache, slight delirium, flushing of the face, and general *malaise*, which had attended the use of the remedy before the quinia was employed. In this manner I have succeeded in greatly lessening the tremor, contracture, difficulty of speech, sense of heat, feeling of restlessness, etc., and for some two months the patient has been taking his medicines upon this plan, not needing to see me for weeks at a time, and has derived the only relief that has been obtained during a duration of the disease for fifteen years.

In several lunatics, from whom the effects of a dose of hyoscyamine was passing off, or who were becoming tolerant of the drug, so that they were returning to the excited condition for which the drug had been given, I have seen them calmed again by five grains of quinine, although none of the listlessness and languor of the hyoscyamine would reappear. The result of the combination was particularly happy in a case of puerperal mania† which I saw in consultation with Dr. James R. King. The patient, who was greatly excited, was fully brought under the influence of hyoscyamine, with only temporary effect. I was then a novice in the use of this medicine, and hesitated to prescribe large doses, although the woman was not especially debilitated. I suggested giving ten grains of quinine with the next morning's dose of hyoscyamine, and repeating it the following evening. Dr. King soon wrote me that entire recovery had followed the second dose. It is proper to say that there was no evidence of malaria in this patient, and that large doses of quinine had preceded the hyoscyamine. Let me say, in passing, that hyoscyamine should be prescribed with caution in

* ARCHIVES OF MEDICINE. "Notes on Hyoscyamine," June, 1880.

† I use this term in the technically alienistic sense of the word, whose equivalents are the German *Tobsucht* and the French *manie*.

asthenic cases, not because it is dangerous to life except in extreme weakness, but because it is deleterious in other ways. Belladonna in full doses produces much less depression than either hyoscyamine or the bromides; still I have found it useful to stimulate its action with quinine in asthenic patients.

For these reasons I believe that I am correct in stating that quinine will increase the sedative effect of the bromides, belladonna and hyoscyamine, whilst it simultaneously decreases or dispels the depression which these medicines usually produce. I am fully aware of the difficulty of accurately expressing my meaning in current therapeutic terms, and am thus forced to make a somewhat arbitrary distinction between sedation and depression, meaning by the former term, the calming power over the diseases for which the trio are generally given, and by the latter, the weakness of the heart, respiration, pallor, anorexia, languor, which they generally cause in variable degree. Is this fact one of the many that constitute a law? Do tonics and stimulants generally increase the sedation and lessen the depression of nervous sedatives? I am endeavoring to work out an answer to these questions, to which I am inclined to reply in the affirmative. Among other facts, I am inclined to regard Dr. E. C. Seguin's treatment of epilepsy by the bromide and chloral mixture as another illustration of some such law. It will be remembered that by adding the chloral, epileptics improved, and the bromism was lessened. The objection will be made, of course, that chloral is a nervous sedative itself; but I have usually found that chloral is most likely to succeed in those persons who stand in need of tonics or stimulants.

What the explanation of these facts is, it is not easy to say. It must largely be a matter of speculation; and into that wide realm I prefer not to enter at present.



ARCHIVES OF MEDICINE FOR 1880.

A BI-MONTHLY JOURNAL.

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182 FIFTH AVENUE,

NEW YORK.